1   1.   In a method of making a payment from a payer to a merchant of the type where the

2   payment involves the merchant accepting a proposed payment in the form of an

3   account number having a standard syntax from the payer at completion of a

4   purchase, followed by the merchant requesting an authorization for the proposed

5   payment from a financial institution, the improvement comprising the following act

6   performed by a trusted third party service:

7   a)   authenticating the payer and authorizing the proposed payment in a single

8   integrated process conducted without the involvement of the merchant.

1   2.   The improvement of claim 1 further comprising the act of:

2   a)   allowing a persistent channel to be established between the trusted third

3   party service and the payer prior to the payer completing the purchase, and

4   wherein the act of authenticating the payer and authorizing the proposed

5   payment in a single integrated process comprises the act of verifying that

6   the persistent channel is available, and optionally contacting the payer over

7   the persistent channel for additional authorization, if additional

8   authorization is required by predetermined preferences.

1   3.   The improvement of claim 2 further comprising the acts of:

2   a)   receiving a request from a Payment Processor for approval of the proposed

3   payment pertaining to the account number, whereby the account number

4   was submitted as the proposed payment for the purchase; and

5   b)   transmitting an instruction to the Payment Processor which depends on

6   whether the transaction is verified or denied.

1   4.   The improvement of claim 3 wherein the trusted third party service comprises a

2   portal accessible on a network through which the persistent channel may be

3   established using a network accessible device.

1 5.   The improvement of claim 4 wherein the trusted third party service further

2   comprises a telephone connection through which the persistent channel may be

3   established.

1 6.   The improvement of claim 5 wherein the transaction is an e-commerce transaction

2   on the network, and wherein the transaction takes place between the payer's

3   network accessible device and the merchant's world wide web site on the network.

1 7.   The improvement of claim 5 wherein the purchase involves personal contact

2   between the payer and the merchant.

1 8.   The improvement of claim 6 or claim 7 wherein the Payment Processor is the

2   issuer of a payment card account having the account number.

1 9.   The improvement of claim 6 wherein the trusted third party service comprises an

2   instant message system and the persistent channel is established over the instant

3   message system.

1   10.   In a method of making a payment from a payer to a merchant in an online

2   transaction involving an online purchase over a first network, the transaction being

3   of the type where the payment involves the merchant accepting a proposed

4   payment in the form of an account number having a standard syntax at completion

5   of the purchase, followed by the merchant requesting an authorization for the

6   proposed payment from a financial institution, the improvement comprising the

7   following acts performed by a trusted third party service:

8   a)   allowing the payer to initiate a persistent channel with the trusted third

9   party service prior to completing the online purchase;

10   b)   receiving a request from a Payment Processor for approval of the proposed

11   payment pertaining to the account number, whereby the account number

12   was submitted as the proposed payment in the online transaction;

13   c)   verifying the proposed payment by verifying that the persistent channel is

14   available, and optionally contacting the payer over the persistent channel

15   for additional verification, if additional verification is required by

16   predetermined; and

17   d)   transmitting an instruction to the Payment Processor wherein the content of

18   said instruction depends on whether the transaction is verified or denied.

1   11.   The improvement of claim 10 further comprising the acts of:

2   a)   associating a proxy account number assigned to the payer with at least one

3   valid account number and other information pertaining to the payer in a

4   database accessible to the trusted third party service, wherein said proxy

5   account number follows the standard syntax and comprises routing

6   information associated with the Payment Processor;

7   b)   if the account number is the proxy account number, processing the request

8   by identifying the at least one valid account number; wherein the

9   instruction transmitted to the Payment Processor further comprises a valid

10   account number corresponding to the proxy account number

68

1	12.	The improvement in claim 10 or claim 11 wherein the trusted third party service
2		comprises software executing on at least one computer server integrated with the
3		Payment Processor's payment processing application.
1	13.	The improvement of claim 10 or claim 11 wherein the trusted third party service
2		comprises software executing on at least one computer server residing on the first
3		network and communicates with the Payment Processor over a secure external
4		link.
1	14.	The improvement of claim 10 or claim 11 wherein the persistent channel is
2		established using the payer's network accessible devices over either the first
3		network or a second network.
1	15.	The improvement of claim 10 or claim 11 wherein the persistent channel is
2		established by telephone over a telephone network.
1	16.	The improvement of claim 10 or claim 11 wherein the persistent channel is
2		established over an instant message system.
1	17.	The improvement of claim 10 or claim 11 wherein the standard syntax comprises
2		routing information and account identifying information.
1	18.	The improvement of claim 11 wherein the proxy account number is also a valid
2		account number.
1	19.	The improvement of claim 15 further comprising providing the payer with access
2		to functionality to receive a request for approval of the proposed payment over the
3		persistent channel and to reply over the persistent channel.

1   20. The improvement of claim 19 wherein the trusted third party service is an online

2   service comprising at least one network server operating a portal software for

3   communicating with the payer using the payer's network accessible device over

4   the persistent channel.

1   21. The improvement of claim 20 wherein the payer's network accessible device

2   comprises a computer system and the persistent channel is established over the first

3   network between the computer system and the at least one network server.

1   22. The improvement of claim 21 wherein the at least one valid account number

2   associated in the database with the proxy account number comprises a plurality of

3   valid account numbers.

1   23. The improvement of claim 22 wherein the first network is the Internet, the

2   financial institution is a bank and the account numbers are chosen from the group

3   consisting of credit card account numbers, debit card numbers, and checking

4   account numbers.

1   24. The improvement of claim 23 further comprising the act of allowing the payer to

2   choose one of the plurality of account numbers for use in the payment.

1   25. The improvement of claim 23 further comprising the act of allowing the payer to

2   split the proposed payment among the plurality of account numbers according to

3   an amount - account number array.

1   26. The improvement of claim 24 further comprising the act of transmitting at least

2   one additional instruction to the Payment Processor each comprising one of the

3   plurality of account numbers as required for the split transaction.

1	27.	A computer readable medium comprising computer executable steps to perform
2		the steps of the improvement recited in claim 10 or claim 11.

1	28.	A computer server programmed to perform the steps of the improvement recited in
2		claim 10 or claim 11.
3	29.	In a method of making a payment from a payer to a merchant in an online
4		transaction over a first network, the transaction involving an online purchase and
5		being of the type where the payment involves the beneficiary accepting a proposed
6		payment in the form of an account number having a standard syntax, followed by
7		the merchant requesting an authorization for the proposed payment from a
8		financial institution, the improvement comprising the following acts performed by a
9		trusted third party service:
10	a)	associating an identifier assigned to the payer with at least one valid account
11		number and other information pertaining to the payer in a database accessible to
12		the trusted third party service;
13	b)	allowing the payer to initiate a persistent channel over the first network with the
14		trusted third party service prior to completing the online purchase;
15	c)	receiving a request from a Payment Processor for approval of the proposed
16		payment pertaining to the account number, whereby the account number was
17		submitted as the proposed payment in the online transaction, and wherein the
18		account number is in the standard syntax and comprises routing information
19		associated with the Payment Processor;
20	d)	verifying the proposed payment by verifying that the persistent channel is available,
21		and optionally contacting the payer over the persistent channel for additional
22		verification, if additional verification is required by predetermined;
23	e)	processing the request by identifying the at least one valid account number; and
24	f)	transmitting an instruction to the Payment Processor wherein the content of said
25		instruction depends on whether the transaction is verified or denied, and if the
26		transaction is verified, the instruction comprises a valid account number associated
27		with said identifier.

71

1   30.   The improvement in claim 29 wherein the trusted third party service comprises

2   software executing on at least one computer server integrated with the Payment

3   Processor's payment processing application.

1   31.   The improvement of claim 29 wherein the trusted third party service comprises

2   software executing on at least one computer server residing on the first network

3   and communicates with the Payment Processor over a secure external link.

1   32.   The improvement of claim 30 or claim 31 further comprising providing the payer

2   with access to functionality to receive a request for approval of the proposed

3   payment over the persistent channel and to reply over the persistent channel.

1   33.   The improvement of claim 32 wherein the trusted third party service is an online

2   service comprising at least one network server operating a portal software for

3   communicating with the payer using the payer's network accessible device over

4   the persistent channel.

1   34.   The improvement of claim 32 wherein the payer's network accessible device

2   comprises a computer system, and the persistent channel is established over the

3   first network between the computer system and the at least one network server.

1   35.   The improvement of claim 34 wherein the at least one valid account number

2   associated in the database with the identifier assigned to the payer comprises a

3   plurality of valid account numbers.

1   36.   The improvement of claim 35 wherein the first network is the Internet, the

2   financial institutions are banks and the account numbers are chosen from the group

3   consisting of credit card account numbers, debit card numbers, and checking

4   account numbers.

1   37.   The improvement of claim 36 further comprising the act of allowing the payer to

2   choose one of the plurality of account numbers for use in the payment.

1   38.   The improvement of claim 36 further comprising the act of allowing the payer to

2   split the proposed payment among the plurality of account numbers according to

3   an amount - account number array.

1   39.   The improvement of claim 38 further comprising the act of transmitting at least

2   one additional instruction to the Payment Processor each comprising one of the

3   plurality of account numbers as required for the split transaction.

1   40.   A computer readable medium comprising computer executable steps to perform

2   the steps of the improvement recited in claim 29.

1   41.   A computer server programmed to perform the steps of the improvement recited in

2   claim 29.

42. A dynamic payment system in a node joining a first network whereupon online transactions are conducted and a private payment approval network comprising:

a) at least one computer server comprising software executing thereon comprising the following functionality:

i) functionality for establishing a persistent channel with a plurality of user's for dynamic approval of online payment transactions taking place on the first network using the users' network enabled devices

ii) functionality for recognizing and receiving requests from a Payment Processor for authorization of proposed payments originating from the users' network enabled devices, the requests having been transferred to the Payment Processor over the private payment approval network,

iii) functionality for verifying the proposed payments over the persistent channel, and

iv) functionality for transferring a plurality of instructions to the Payment Processor, each of said plurality of instructions depending on whether a proposed payment is verified; and

b) a database comprising users' data and preferences.

1	43.	The dynamic payment system of claim 42 wherein the software executing on the at
2		least one computer server further comprises the following functionality:
3	a)	functionality for mapping a plurality of proxy account numbers against data
4		pertaining to a plurality of users, wherein the data pertaining to each user
5		comprises connection data identifying the persistent channel being used by the
6		user, and at least one valid account number for the user, wherein the plurality of
7		proxy account numbers are in a standard account syntax which comprises routing
8		information which allows a transaction involving the proxy account number to be
9		routed to the dynamic payment system; and
10	b)	functionality for handling requests involving the plurality of proxy account
11		numbers, comprising identifying the at least one valid account number
12		corresponding to one of the plurality of proxy account numbers; and wherein the
13		instruction transferred to the Payment Processor in a transaction involving one of
14		the plurality of proxy account numbers comprises the at least one valid account
15		number mapped against the one proxy account number.

1	44.	The dynamic payment system of claim 42 or claim 43 wherein the system further
2		comprises software executing on the users' network accessible devices for
3		establishing persistent channels and exchanging data with the at least one computer
4		server.

1	45.	The dynamic payment system of claim 44 further comprising an instant message
2		system.

1	46.	The dynamic payment system of either claim 42 or claim 43 wherein the dynamic
2		payment system is fully integrated within the Payment Processor's processing
3		application.

1	47.	The dynamic payment system of claim 45 wherein the dynamic payment system is
2		fully integrated within the Payment Processor's processing application.

75

1   48.   The dynamic payment system of either claim 43 wherein the dynamic payment
2   system is on the first network and wherein the dynamic payment system is
3   connected to the Payment Processor by a secure link.

1   49.   The dynamic payment system of claim 46 wherein the dynamic payment system is
2   on the first network and wherein the dynamic payment system is connected to the
3   Payment Processor by a secure link.

1   50.   The dynamic payment system of either claim 43 wherein the network accessible
2   device is chosen from the group consisting of computer systems, personal digital
3   assistants, set top boxes, and wireless access devices.

1   51.   The dynamic payment system of claim 46 wherein a plurality of proxy account
2   numbers are also a valid account numbers.

1   52.   A computer readable medium having the software functionality recited in claim 43.

1   53.   In a method for transferring funds between a payer having a payer's account in a

2   first institution said account being represented by a payer's debit card number and

3   a receiver having a receiver's account in a second institution said receiver's

4   account represented by a receiver's debit card number wherein the transfer is

5   initiated by the payer on an on-line service and routed for processing between the

6   first financial institution and the second financial institution by a Payment

7   Processor, the improvement comprising the following acts performed by a trusted

8   third party service:

9   a)   associating a proxy debit card number assigned to the receiver with at least

10   one valid debit account number and other information about the receiver in

11   a database accessible to the trusted third party service, wherein the proxy

12   debit card number follows a standard syntax for debit cards and comprises

13   routing information which allows it to be routed to the trusted third party

14   service;

15   b)   receiving a request from the Payment Processor pertaining to a payment

16   intended for the proxy debit account number;

17   c)   processing the request comprising finding the at least one valid debit

18   account number corresponding to the proxy debit card number;

19   d)   transmitting at least one instruction to the Payment Processor comprising a

20   valid debit account number associated with the proxy debit account

21   number.

1   54.   The improvement of claim 53 further comprising assigning the receiver at least one

2   proxy debit account number.

1   55.   The improvement of claim 54 wherein the at least one valid account number

2   comprises a plurality of valid account numbers.

1   56.   The improvement of claim 55 further comprising obtaining preferences for

2   receiving payments.

1 57. The improvement of claim 56 further comprising interpreting the request in
2 accordance with the preferences and transmitting additional instructions to the
3 Payment Processor as needed to comply with the preferences.

1 58. A computer readable medium comprising computer executable instructions for
2 carrying out the method recited in claim 53.

1 59. A dynamic payment system in a node joining a first network whereupon online
2 transactions are carried out, and a private payment approval network, the system
3 comprising:
4 a) agent means for establishing persistent channels with a plurality of users' network
5 accessible devices and transmitting and receiving messages over said plurality of
6 persistent channels;
7 b) portal means for presenting a web page to each of the plurality of users' network
8 accessible devices, and sending and receiving information between the dynamic
9 payment system and the plurality of users' network accessible devices, and
10 maintaining connection data pertaining to said plurality of users' network
11 accessible devices;
12 c) server means for mapping data pertaining to a plurality of users into a database
13 means, receiving and processing requests from a Payment Processor, and
14 responding to the Payment Processor; and
15 d) database means for storing said data pertaining to a plurality of users.

1 60. The dynamic payment system of claim 59, further comprising telephone channel
2 means for establishing alternate persistent channels by telephone.